

Applicant : Ankur Bhatt, et al.
Serial No. : 10/699,170
Filed : October 31, 2003
Page : 2 of 22

Attorney's Docket No.: 13906-121001/2003P00232 US01

Amendments to the Specification:

Please replace the paragraph beginning at page 7, line 17 with the following amended paragraph:

In one embodiment, referring to FIG. 1, network 24 6 provides electronic connectivity to transport export data file 22 from source system 12 to target system 26. Various types of network topologies and data communication facilities may be supported by network 24 6. In some embodiments, for example, computer network 24 6 is landline based. In other embodiments, wireless-based technologies are used for data communication between source system 12 and target system 26. In yet other embodiments, computer network 24 6 may transfer information between source system 12 and target system 26 using a serial connection, a universal serial bus ('USB') connection, or storage mediums (e.g., floppy disks, tape, compact disks).

Please replace the paragraph beginning at page 7, line 29 with the following amended paragraph:

Referring to FIG. 1, target system 26 is provided and serves as a destination location for export data file 22. Similar to source system 12, target system 26 may be a computing device that includes a processor ~~21~~ 11 and memory 23. For example, in some embodiments, target system 26 may be another mobile computing device, personal computer ('PC'), or a server-based computing system storing a target database. As illustrated in FIG. 1, target system 26 is configured to connect to computer network 24 6 and to receive export data file 22. In other embodiments, target system 26 can receive export data file 22 from an external storage medium (e.g., a floppy disk, tape, or compact disk). Target system 26 includes an import application 15 and a target database 28.

Applicant : Ankur Bhatt, et al.
Serial No. : 10/699,170
Filed : October 31, 2003
Page : 3 of 22

Attorney's Docket No.: 13906-121001/2003P00232 US01

Please replace the paragraph beginning at page 8, line 10 with the following amended paragraph:

Target database 28 provides a storage area for data items that may be copied from export data file 22. In one embodiment, for example, target database 28 is a relational database that stores information on target system 28 26. In other embodiments, target database 28 may be a directory server, such as a Lightweight Directory Access Protocol (LDAP) server, accessible to target system 26. In yet other embodiments, target database 28 may be a configured area in memory of target system 26 that may store and data items.

Please replace the paragraph beginning at page 8, line 19 with the following amended paragraph:

As shown in FIG. 1, import application 15 is provided and includes software modules configured to copy data elements from export data file 22 to target database 28. In one embodiment, for example, import application 15 may include an import manager interface 24 and an import agent 26 10. Similar to export application 14, import application 15 may include other software components. For example, in some embodiments, import application 15 also may include export manager interface 16 and export agent 18 to copy data elements from a source database residing on target system 26.

Please replace the paragraph beginning at page 8, line 29 with the following amended paragraph:

Import manager interface 24 provides a graphical user interface that displays data elements stored in export data file 22. In one embodiment, as illustrated in FIG. 1, import manager interface 24 may communicate with import agent 26 10 and request a listing of available data elements stored in export data file 22 based on user input for display to a user. Upon user selection of data elements, import manager interface 24 may communicate a request to import agent 26 10 to copy user selected data elements to target database 28. One embodiment of import manager interface 26 is illustrated in FIG. 4.

Applicant : Ankur Bhatt, et al.
Serial No. : 10/699,170
Filed : October 31, 2003
Page : 4 of 22

Attorney's Docket No.: 13906-121001/2003P00232 US01

Please replace the paragraph beginning at page 9, line 7 with the following amended paragraph:

In one embodiment, referring to FIG. 1, import agent 26 10 also provides a listing of data elements stored in export data file 22 to import manager interface 26 24 for display to a user and executes copying of data elements stored in export data file 22 to target database 28. In this embodiment, import agent 26 10 receives a listing request 25 from import manager interface 24 that includes a directory path location of export data file 22. Upon receiving the listing request, import agent 26 10 identifies data items stored in export data file 22 and provides a result list 27 to import manager interface 24 for display to a user.

Please replace the paragraph beginning at page 9, line 17 with the following amended paragraph:

Import agent 26 10 also provides copying of data items to target database 28. Referring to FIG. 1, for example, import agent 26 10 receives a copy request 29 from import manager interface 24 based on user input and copies user selected data items from export data file 22 to target database 28. The methodology for copying data elements from export data file 22 to target database 28 is described in FIG. 5.

Please replace the paragraph beginning at page 9, line 24 with the following amended paragraph:

Referring to FIG. 2, one embodiment of export manager interface 16 is illustrated. As illustrated in FIG. 2, export manager interface 16 may be integrated into a larger application framework 47 by first selecting an export-import pulldown menu option 31 and then selecting export manager menu option 33. In other embodiments, export manager interface 16 may be utilized as a stand-alone application.

Please replace the paragraph beginning at page 13, line 23 with the following amended paragraph:

Referring now to FIG.5, in one embodiment, export agent 18 may execute the following method for copying data items to export data file 22 for transfer to target system 26. First, export agent 18 accesses the list of tagged data items to be copied to a database 68 located on a target

Applicant : Ankur Bhatt, et al.
Serial No. : 10/699,170
Filed : October 31, 2003
Page : 5 of 22

Attorney's Docket No.: 13906-121001/2003P00232 US01

system. As described earlier, in some embodiments, tagged data items may be included in copy request 21 generated by export manager interface 16. In other embodiments, for example, export agent 18 may access a local entity basket file to retrieve data items for copying. Next, once accessed, export agent 18 determines whether a particular tagged data item has any related data elements 70. In some embodiments, for example, a data element, such as a report, may have related text elements that include report headings, column headings, as well as embedded logic that determines the manner in which a particular aspect of the data item is to be displayed (e.g. font type and size, numeric decimal format). Next, data elements and any related data elements are accessed 72 from source database 20. Next, a determination is made whether a reference export file is specified 73 9. In the event a reference export file is not specified, export agent 18 then converts data elements and related data elements to ActiveX Data Object ('ADO') specific extensible markup language ('XML') files by data item type 74. Once all of the ADO specific XML files are generated, export agent 18 then compresses all XML files 76 into export data file 22 using commercially available compression algorithms. If a reference export file is specified 73 9, export agent then decompresses reference export file 75 8 using commercially available decompression algorithms. Next, export agent 18 then reads ADO information 77 7 for data elements and data elements stored in the reference export file. Next, export agent 18 determines if the ADO information for data elements and related data elements is identical to the ADO information for data elements and related data elements accessed 78 from source database. If the ADO information read from the reference export data file is not identical, then export agent converts the data elements and related data elements accessed from source database to ADO specific extensible markup language ('XML') files by data item type 74. Once all of the ADO specific XML files are generated, export agent 18 then compresses all XML files 76 into export data file 22 using commercially available compression algorithms.

Please replace the paragraph beginning at page 15, line 1 with the following amended paragraph:

Referring to FIG. 6, one embodiment of the import manager interface 24 is illustrated. Import manager interface 24 provides a graphical user interface that allows a user to selectively

Applicant : Ankur Bhatt, et al.
Serial No. : 10/699,170
Filed : October 31, 2003
Page : 6 of 22

Attorney's Docket No.: 13906-121001/2003P00232 US01

control the copying of data items stored in export data file 22 to target database 28. In one embodiment, as illustrated in FIG. 6, import manager interface is integrated into a larger application framework 47 and is accessible by first selecting export-import-pulldown menu option 31 and then selecting import manager option 35. In other embodiments, import manager interface 24 may be utilized as a stand-alone application.

Please replace the paragraph beginning at page 15, line 20 with the following amended paragraph:

As illustrated in FIG. 6, import manager display area 81 also includes a "get entities" button 82. Upon selection of "get entities" button 82 by the user, import manager interface 24 sends listing request 25 that includes the location specified by the user in import-data-file-path menu option 80 to import agent 26 10 for processing. Import agent 26 10 then queries export data file 22 and target database 28 and provides import manager interface 24 with result list 27 for display to the user. Import manager interface 24 then displays a user selectable result list in import entity display area 82 83 and prompts the user for a selection of data items to be copied to target database 28. In other embodiments, import manager interface 24 may display all data items stored in export data file 22 in import entity display area 82 83 and prompt the user for a data item selection.

Applicant : Ankur Bhatt, et al.
Serial No. : 10/699,170
Filed : October 31, 2003
Page : 7 of 22

Attorney's Docket No.: 13906-121001/2003P00232 US01

Please replace the paragraph beginning at page 16, line 9 with the following amended paragraph:

As shown in FIG. 6, import entity display area 83 also provides a user selectable import setting control 88 for each data item displayed. Import setting control 88 allows a user to control whether related data elements are overwritten or ignored during copying of a data item to target database 28. One advantage of this design may be when a vendor distributes data elements used by vendor supplied software solutions to customers. For example, software vendors periodically update their software and information databases and send these updates to their customers. Customers, however, already may have spent time customizing vendor software and/or information databases used by this software. For example, a customer may have already added a note or modified a report provided by the vendor in some manner. This design provides a customer with control for accepting or denying the copying of update changes received from a vendor's source database where automatic acceptance of such changes may overwrite customized database information stored in a customer's target database.

Please replace the paragraph beginning at page 16, line 27 with the following amended paragraph:

As illustrated in FIG. 6, import entity display area 83 also provides a "select all" button 98 that once selected by the user, tags all data items displayed in import entity display area 83 as candidates to be copied to target database 28. A "deselect all" button 100 is provided that, once selected by the user, untags all selected items in import entity display area 83. Also provided is a "filter entities" button 99 that, once selected, allows a user to specify entity types [[44]] 5 to be displayed in user selectable listing 84, a "reset filter" button 103 that, once selected by the user, displays all data items stored in export data file 22, and an "import" button 102 that, once selected by the user, initiates copying of displayed tagged data items in import entity display area 83 to target database 28. Import entity display area 83 also provides a "backup entities" check box 101 that, once selected by the user, serves as an indicator that data items stored in target

Applicant : Ankur Bhatt, et al.
Serial No. : 10/699,170
Filed : October 31, 2003
Page : 8 of 22

Attorney's Docket No.: 13906-121001/2003P00232 US01

database 28 that may be modified or deleted as a result of the copy operation are to be first copied to a restorable archive file.

Please replace the paragraph beginning at page 17, line 13 with the following amended paragraph:

In one embodiment, as illustrated in FIG. 6, the copying of tagged data items displayed in "import entities" display area 83 to target database 28 (FIG. 1) is initiated by user selection of "import" button 102. Upon selection, and referring to FIG. 1, import manager interface 24 sends copy request 29, which includes tagged data items to import agent 26 10 for processing. In other embodiments, selection of "import" button 102 may generate a local text file containing tagged data items displayed in the import entity display area 83, the existence of the local text file may initiate import agent 26 10 to copy items to target database 28.

Please replace the paragraph beginning at page 17, line 24 with the following amended paragraph:

In another embodiment, referring to FIG. 7, upon selection of import button 102, status viewer screen 71 is displayed and presents status information relating to execution of the copy method for each data item displayed in import entities display area 83. As illustrated in FIG. 7, status viewer screen 71 includes a "view selected log" button 75 that provides additional detailed status information for data items to be copied to target database 28. As illustrated in FIG. 7, for example, upon selection of data item "CPActivity Col" and "selected log" button 75, detailed information 104 regarding whether the copy operation for data elements and related data elements contained in the data item "CPActivity Col" completed successfully. Referring to FIG. 8, in one embodiment import agent 26 10 executes the following method to either add or update data items to target database 28. First, import agent 26 10 decompresses XML files stored in export data file 22 into individual XML files by data item type using commercially available decompression algorithms 110. Next, import agent 26 10 reads XML files corresponding to data item types selected for copying 112 to target database 28. Next, import agent 26 10 converts corresponding XML file entries to ADO Recordsets 114 and then converts the ADO Recordsets to a data item 116. Next, import agent 26 10 then determines the import setting control 88

Applicant : Ankur Bhatt, et al.
Serial No. : 10/699,170
Filed : October 31, 2003
Page : 9 of 22

Attorney's Docket No.: 13906-121001/2003P00232 US01

established for the data item 118. In one embodiment, for example, if the import setting control 88 is set to "delete", import agent 26 10 copies corresponding existing data items from target database 28 to an archival file 119 that may be used to restore data items to target database 28. Next, import agent 26 10 deletes the corresponding data item 122 in target database 28 and inserts the new data item 124 converted from the ADO Recordset into target database 28. Lastly, import agent 26 10 records its execution status in a status file 130.

Please replace the paragraph beginning at page 18, line 24 with the following amended paragraph:

If import agent 26 10 determines that the import setting control 88 is not set to "delete", import agent 26 10 then determines whether the data item converted from the ADO Recordset exists 123 in target database 28. If the data item converted from the ADO Recordset does not exist in target database 28, then import agent 26 10 inserts the data item 126 into target database 28 and records its execution status in status file 130. If the data item converted from the ADO Recordset does exist in target database 28, import agent 26 10 copies corresponding existing data items from target database 28 to a restorable archival file 121 and updates corresponding existing data items 128 in target database 28 with the data item converted from the ADO Recordset. Lastly, import agent 26 10 records its execution status in status file 130.